WHAT IS CLAIMED IS:

1. A rotor blade system with reduced blade-vortex interaction noise, comprising:

at least one rotor blade coupled at one end thereof to a central hub and extending radially therefrom and terminating in a rotor blade tip face at another end of said at least one rotor blade opposite to said one end thereof, said at least one rotor blade having spaced apart upper and lower surfaces, leading and trailing edge portions at respective opposing joined edges of said upper and lower surfaces, and an interior volume of said at least one rotor blade defined and enveloped by said upper and lower surfaces, said leading and trailing edges, and said rotor blade tip face; and

at least one tube member embedded into said at least one rotor blade in proximity to said another end thereof, said at least one tube member having an inlet located at said leading edge, an outlet located at said rotor blade tip face, and a tube member length extending between said inlet and outlet within said interior volume of said at least one rotor blade.

2. The rotor blade system of Claim 1, including a plurality of tube members extending in a predetermined fashion within said interior volume of said at least one rotor blade, and wherein a plurality of inlets and outlets are formed respectively on said leading edge and said rotor blade tip face of said at least one rotor blade.

3. The rotor blade system of Claim 2, comprising four said tube members.

4. The rotor blade system of Claim 1, wherein said length of said at least one tube member is arcuately shaped.

5. The rotor blade system of Claim 2, wherein said inlets are positioned above the chord line of said at least one rotor blade.

6. The rotor blade system of Claim 1, further comprising a plurality of rotor blades.

7. The rotor blade system of Claim 2, wherein the distance between said outlets is approximately 0.157 of the chord of said rotor blade tip, and wherein the diameter of each said tube member is approximately 0.067 of said chord.

8. The rotor blade system of Claim 1, wherein during said at least one rotor blade rotational motion, a pressure gradient is generated between said inlet and said outlet of said at least one tube member, thus directing an incident flow through said at least one tube member from said leading edge to be ejected from said rotor blade tip face resulting in introduction of turbulent vortlets into the laminar core of a developing vortex, thereby dissolving said laminar core and reducing the blade-vortex interaction noise.

9. A method of reducing blade vortex interaction noise in a rotor blade system, comprising the steps of:

coupling at least one rotor blade at one end thereof to a central hub and extending said at least one rotor blade radially therefrom, said at least one rotor blade including:

a rotor blade tip face on another end of said at least one rotor blade opposedly to said one end thereof,

spaced apart upper and lower surfaces,

leading and trailing edge portions at respective opposing joined edges of said upper and lower surfaces, and

an interior volume of said at least one rotor blade defined and enveloped by said upper and lower surfaces, said leading and trailing edges, and said rotor blade tip face; and

embedding at least one tube member into said at least one rotor blade in proximity to said blade tip face, said at least one tube member

having an inlet thereof positioned at said leading edge portion, an outlet thereof positioned at said rotor blade tip face, and a tube member length extending in arcuated fashion between said inlet and outlet within said interior volume of said at least one rotor blade.

10. The method of Claim 9, further comprising the steps of:

embedding into said at least one rotor blade a plurality of said tube members,

forming an array of a plurality of said inlets at said leading edge position, and

forming an array of a plurality of said outlets at said rotor blade tip.

11. The method of Claim 9, further comprising the steps of:

initiating rotational motion of said at least one rotor blade about a central axis, thus generating a pressure gradient between said inlet and outlet of said at least one tube member, and thus forcing a portion of the flow incident onto said leading edge through said at least one tube member to be ejected out of said rotor blade tip face, resulting in introduction of turbulent vortlets from said rotor blade tip face into the laminar core of a developing vortex, thus dissolving the laminar core and thus reducing the blade-vortex interaction noise.